



LAKE COUNTY ENVIRONMENTAL HEALTH 259

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RE: House Bill 259 – Requiring State Regulation of Gray Water Disposal **Opposition**

Dear Chairman McNutt and Members of the House Natural Resources Committee:

This letter serves as opposition to House Bill 259 requiring Montana Department of Environmental Quality regulation of gray water disposal:

- 1. State law under Title 50 Health and Safety already allows for the regulation of gray water by Local Boards of Health. This is the correct location for such regulation as gray water contains biological and chemical agents of public health significance.
- 2. The best means to consider reuse of gray water is through a DEQ task force that can address the full implications of separating gray water from the total wastewater stream. DEQ should not be given a mandate to regulate gray water without first determining that separation of gray water is an advisable thing to do. The DEQ task force that generally considers these matters is a very active, engaged group of environmental health professionals. If separation and reuse of gray water proves to be a viable option, the methods to do so can be incorporated in the existing rules, ARM 17.36 SubChapter 9 under Title 50.

General Considerations:

- 1. Gray water is not benign regarding public health:
 - a. The kitchen sink has more bacteria than the toilet.
 - b. Laundry, shower and bath water contain fecal coliform bacteria.
 - c. Gray water irrigation causes a statistically significant increase in the levels of fecal coliform bacteria in soil when compared to soil irrigated with potable water.
 - d. Households with children show a significant increase in fecal coliform bacteria levels in gray water.
 - e. Gray water contains household chemicals.

References: American Water Resources Association, www.awara.org
Dr. Charles P. Gerba, PhD, Departments of Soil, Water and Environmental Science and
Epidemiology, University of Arizona. Information from New York Times: Scientist at Work:
Charles Gerba: February 23, 1999; http://query.nytimes.com

2. Because gray water contains the same biological and chemical contaminants as wastewater, it must have the same minimum setback requirements from ground and surface water supplies. And, it must have subsurface disposal.

- 3. If reuse of gray water is a good idea, as determined by a DEQ task force of environmental health professionals, it can be addressed by revising existing rules under Title 50, ARM 17.36 SubChapter 9. No new legislative mandate is needed.
- 4. For on-site wastewater treatment systems:
 - a. Having the general wastewater flow controlled under Title 50 and gray water flow controlled under Title 75 is problematic in that it mixes wastewater authorities.
 - b. By removing gray water from the wastewater stream, the remaining wastewater becomes high strength which requires special treatment under current rules. Also, removing a significant percentage of water from the wastewater stream may be damaging to both the biological processes of a septic tank and the health of the drainfield.
 - c. By the time one separates, settles and/or filters gray water, provides disposal trenches meeting the necessary setbacks for protection of public health, and adjusts the regular on-site wastewater system for high strength wastewater, separating the streams is probably not justifiable. If one is truly dedicated to reuse of wastewater, it would be just as economical to do a full wastewater drip irrigation system.
 - d. DEQ staff time would be much better spent developing specifications for drip irrigation of wastewater under our current regulations. Lake County already has a few of these systems permitted by the Local Board of Health as "Experimental". And the "experiments" appear to be successful
- 5. Gray water reuse systems may be problematic in the winter months. They will be subject to freezing due to low biological activity, and reuse for irrigation in the winter months is not feasible. Diversion in winter to the main wastewater stream or some type of storage would be required. An on-site wastewater system will have to be sized for the full flow to accommodate the winter months' diversion.

While this department applauds Representative Reinhart for her effort to conserve our valuable water resources, we believe gray water reuse is best addressed through a DEQ task force. We look forward to the opportunity to working on this issue in a task force where the full implications of and specifications for gray water separation can be fully explored. And, we will support amendment of the existing wastewater rules under Title 50 if gray water reuse is deemed feasible and protective of public and environmental health.

Thank you for your consideration of these comments.

Sincerely,

Susan K. Brueggeman, R.S.

Director

cc: Representative Michele Reinhart